REMARKS

Summary Of The Office Action & Formalities

Claims 1-8 are all the claims pending in the application. By this Amendment, Applicant is amending claims 1, 3, 4, 5, 7, and 8, and adding new claims 9-18. No new matter is added.

Applicant thanks the Examiner for acknowledging the claim to foreign priority and for confirming that the certified copy of the priority document was received.

Applicant also thanks the Examiner for initialing the references listed on form PTO/SB/08 submitted with the Information Disclosure Statement filed on June 28, 2004.

The drawings are objected to for the reason set forth at page 2 of the Office Action. Applicant is amending the specification to render moot the Examiner's objection to the drawings.

The abstract of the disclosure is objected to for the reasons set forth at pages 2-3 of the Office Action. Applicant is amending the abstract to overcome this objection.

Claims 1, 3-5, and 7 are objected to for the reason set forth at page 3 of the Office Action. Applicant is amending the claims to overcome the Examiner's objection. Applicant's amendments are not believed to be narrowing so as to raise any issue of estoppel.

The prior art rejections are summarized as follows:

1. Claims 1-4, 6, and 8 are rejected under 35 U.S.C. § 102(e) as being anticipated by Walker et al. (US Pre Grant Publication 2003/0199603 A1).

2. Claim 5 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Walker in view of Chihara et al. (USP 4,933,259).

3. Claim 7 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Walker in view of Starodubov (US Pre Grant Publication 2003/0202763 A1).

Applicant respectfully traverses.

Claim Rejections - 35 U.S.C. § 102

1. Claims 1-4, 6, And 8 In View Of Walker et al. (US Pre Grant Publication 2003/0199603 A1).

In rejecting claims 1-4, 6, and 8 in view of Walker et al. (US Pre Grant Publication 2003/0199603 A1), the grounds of rejection state:

> Regarding independent Claim 1, Walker teaches an optical fiber (page 2, paragraph 18) having at least one Bragg grating (page 2, paragraph 18), the fiber comprising a core (page 1, paragraph 8) surrounded by a cladding (page 10, paragraph 113) and by a coating (page 2, paragraph 18). Walker also teaches that the grating is directly written through the coating (page 2, paragraph 18), which is made of a material that is transparent to ultraviolet radiation (page 2, paragraph 18) and contains a first polymer network interpenetrated by a second polymer. (Paragraph 22, pages 2 and 3, teaches crosslinks of two distinct polymer networks.)
>
> Regarding Claim 2, Walker teaches the further limitation that the first polymer network is obtained through a photocuring cross-linking operation (paragraph 22 2, pages 2 and 3).
>
> Regarding Claims 3 and 4, Walker teaches the further limitations that the first polymer network is obtained from a first component (a photocurable polymer) by a photcuring cross-linking operation (paragraph 22, pages 2 and 3) and that the second polymer network is obtained from a second component (a thermocurable polymer) by a distinct cross-linking operation (page 4, paragraph 40).
>
> Regarding claim 6, Walker teaches the further limitation that the first polymer network is obtained from a photocurable component by a cationic method and that the second polymer network is obtained from a second photocurable component by a radical method (page 5, paragraph 49 and page 10, paragraph 111).

> Regarding independent Claim 8, Walker teaches the optical fiber with the limitations of Claim 1 incorporated in an optical device (page 1, paragraph 4, where the device is an optical fiber amplifier).

Office Action at pages 4-5. Applicant respectfully disagrees.

Contrary to the grounds of rejection, Walker et al. does not teach or suggest fiber optics that have Bragg gratings, wherein the coating material comprises a first polymer network interpenetrated by a second polymer network. Interpenetrating polymer networks, or IPNs, have particular structures distinct from the blends disclosed in Walker et al. Specifically, unlike those blends, the two or more polymers in IPNs are not crosslinked to a substantial extent. Rather, in IPNs, one polymer is intermeshed, intertwined, or interlaced with the other so as to create mechanical-type links and so as to be inseparable unless chemical bonds are broken.

The cited disclosure in Walker et al. is silent with respect to IPNs. In fact, one skilled in the art would understand paragraph [0022] to refer to a traditional mixture of homogenous or compatible polymers that are substantially or entirely cross-linked between polymer chains.

In view of the foregoing differences, the Examiner is kindly requested to reconsider and withdraw the prior art rejection of claims 1 and 8 and claims dependent from claim 1.

Claim Rejections - 35 U.S.C. § 103

1. Claim 5 Over Walker In View Of Chihara et al. (USP 4,933,259).

In rejecting claim 5 over Walker in view of Chihara et al. (USP 4,933,259), the grounds of rejection state:

> Walker teaches the limitations of Claim 1 as well as the further limitation that the coating material is obtained from a liquid mixture of photocurable and thermocurable silicone (page 4, paragraphs 40 and 42). Walker does not teach the weight

> percentages of the photocurable silicone and the thermocurable silicone. Chihara (Claim 13, Column 16) teaches a mixture comprising a thermocurable component (about 5% to about 50% by weight) and a photcurable component (about 50% to about 95% by weight). It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the weight percentages taught by Chihara into the liquid mixture of Walker. The motivation would have been to provide the coating with excellent adhesion and heat resistance (Chihara, column 2, line 40).

Office Action at pages 5-6.

Without agreeing to or substantively commenting on this rejection, Applicant submits that claims 5 is allowable at least by reason of its dependency.

2. Claim 7 Over Walker In View Of Starodubov (US Pre Grant Publication 2003/0202763 A1).

In rejecting claim 7 over Walker in view of Starodubov (US Pre Grant Publication 2003/0202763 A1), the grounds of rejection state:

> Walker teaches the limitations of Claim 1 but does not teach that the second polymer is a thermoplastic. Starodubov teaches optical fiber coatings made from materials such as thermoplastic and ultra-violet cured polymers (paragraph 11, pages 1 and 2). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the thermoplastic coating of Starodubov in the coating taught by Walker. The motivation would have been to seal the fiber and protect it from environmental contaminants (Starodubov, paragraph 11, page 2).

Office Action at page 6.

Without agreeing to or substantively commenting on this rejection, Applicant submits that claims 7 is allowable at least by reason of its dependency.

New Claims

For additional coverage merited by the scope of the invention, Applicant is adding new claims 9-18. Claims 9-11 are believe to be allowable at least by reason of their respective dependencies. Claims 12-18 are believe to be allowable because they require, among other things, IPNs, which is not taught or suggested by the prior art.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

Raja Saliba
Registration No. 43,078

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

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